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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/140,862 08/27/98 ALBERT

021323 LM02/0608  
TESTA HURWITZ & THIBEAULT  
HIGH STREET TOWER  
125 HIGH STREET  
BOSTON MA 02110

EXAMINER

J INK-006

ART UNIT	PAPER NUMBER
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DATE MAILED: LEWIS, D

2778

06/08/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/140,862**

Applicant  
**Albert et al.**

Examiner  
**David L Lewis**

Group Art Unit  
**2778**



- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-10 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

**Title: Color Electrophoretic Displays**

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:  
A person shall be entitled to a patent unless --  
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
2. **Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Wells (3772013).**
3. **As in claim 1, Wells teaches of a electrophoretic display comprising: at least one capsule containing a suspending fluid and at least a first particle and a second particle, column 2 lines 33-40, column 11 lines 35-37, column 14 lines 57-58, said first particle having a first optical property and a first electrophoretic mobility and said second particle having a second optical property and a second electrophoretic mobility, column 6 lines 23-30; and at least two electrodes disposed adjacent said capsule, column 7 lines 1-5; wherein application of an electric field to said capsule by said electrodes causes said capsule to change visual state responsive to the optical properties and electrophoretic mobilities of said particles, column 7 lines 14-42. Wherein a plurality of encapsulated particles**

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20(inert) and 21(photosensitive), inherently different and therefore inherently having different mobilities, also possessing different photosensitivities, have a field applied prior to or during exposure to radiation and as a result these particles migrate towards an electrode producing an image, wherein the mobility mechanism of encapsulated electrophoretic displays is well known in the art. **As in claim 2, Wells teaches of** wherein said first and second electrophoretic mobility are non-overlapping, column 5 lines 14-26.

4. **As in claim 6, Wells teaches of** an electrophoretic display comprising: at least one capsule containing a suspending fluid and at least one particle, **column 2 lines 33-40, column 11 lines 35-37, column 14 lines 57-58**; at least two electrodes disposed adjacent the capsule, wherein application of a voltage potential to one of said at least two electrodes causes said at least one particle to migrate within said capsule, causing said capsule to change its visual state, **column 2 lines 53-63, column 7 lines 19-43**.  
Wherein a plurality of encapsulated particles 20(inert) and 21(photosensitive), inherently different and therefore inherently having different mobilities, also possessing different photosensitivities, have a field applied prior to or during exposure to radiation and as a result these particles migrate towards an electrode producing an image, wherein the mobility mechanism of encapsulated electrophoretic displays is well known in the art.

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***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 3-5, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells (3772013) in view of Takanashi et al. (5161007).**

7. **As in claim 10, Wells teaches of an electrophoretic display comprising at least one capsule containing a suspending fluid and at least one particle column 2 lines 33-40, column 11 lines 35-37, column 14 lines 57-58; wherein Wells teaches of the invention as applied to claims 1-9 above. Further Wells teaches of forming images of more than one color, column 1 lines 44-54, and column 5 lines 10-43, wherein cyan, magenta, yellow, and other colored particles (which would obviously include white) are radiated through a transparent electrode while applying a voltage potential to the**

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electrode producing an image as a result of the migrated particles. **However Wells does not specifically teach of colored electrodes as found in claim 10. Takanashi et al. teaches of an electrophoretic display wherein said transparent electrodes are made colored electrodes by abutting a color filter to each of the respective electrodes, which are disposed adjacent said capsule (recording means), each colored electrode spaced apart from the other, to produce and image via particle migration as found in Wells. It would have been obvious to the skilled artisan at the time of the invention to provide for colored electrodes as taught by Takanashi et al., in the invention as taught by Wells for the purpose of filtering light to the colored particles having different photosensitivities to produce a colored image as suggested by Wells, and as found in claim 10.**

8. Further dependent claims 3-5, and 7-9 would have been obvious to the skilled artisan over Wells in view Takanashi et al. as applied to claim 10 above. As in claims 4 and 7 it would be obvious that said suspending fluid is transparent for said capsuled particles to receive the radiation. As in claims 3 and 9, Wells teaches of particles being dyed a variety of colors, column 3 lines 54-67. As in claim 5 said suspending fluid is well known in the art to be dyed. As in claim 8, said particles matching the optical properties of the colored electrode would have been obvious in view of the grounds of rejection for claim 10, wherein the colored electrodes obviously correspond to the colored particles.

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***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.  
Shashidhar et al. (58284432), Jones et al. (5138472), Tulagin et al. (3384488).
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(703) 306-3026**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on (703) 305-4938. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**


(703) 308-9051, (for formal communications intended for entry)

**Or:**

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

**Or hand-delivered to:**

Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).



**Bipin H. Shalwala**  
**Primary Examiner**